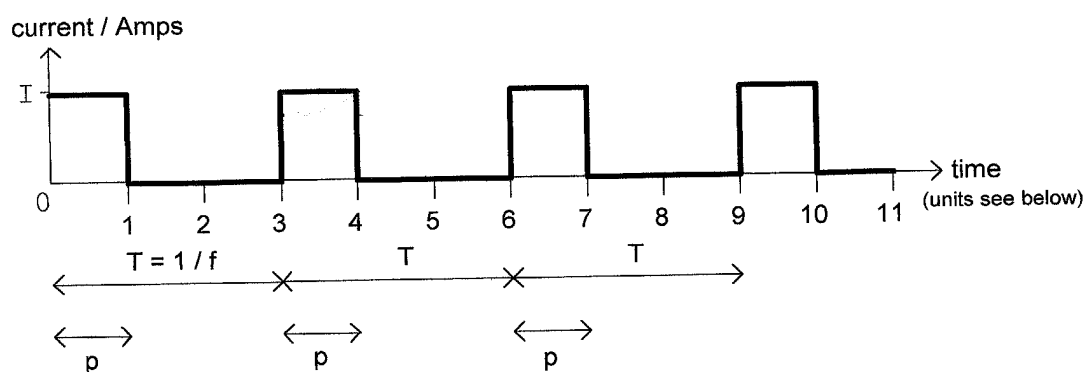FIG 1: current frequency

current / Amps

$$f = c / (3\ a) = \text{drive frequency in Hz}$$

$$p = \text{pulse duration} = T / 3, \text{ where } T = 1 / f$$

FIG 2: phasing chart

Plate 1

current / Amps

I

0   1   2   3   4   5   6   7   8   9   10   11   time
(units see below)

waveform W1

current / Amps

I

0   1   2   3   4   5   6   7   8   9   10   11   time
(units see below)

waveform W2

$T = 1 / f$ T   T

p   p   p
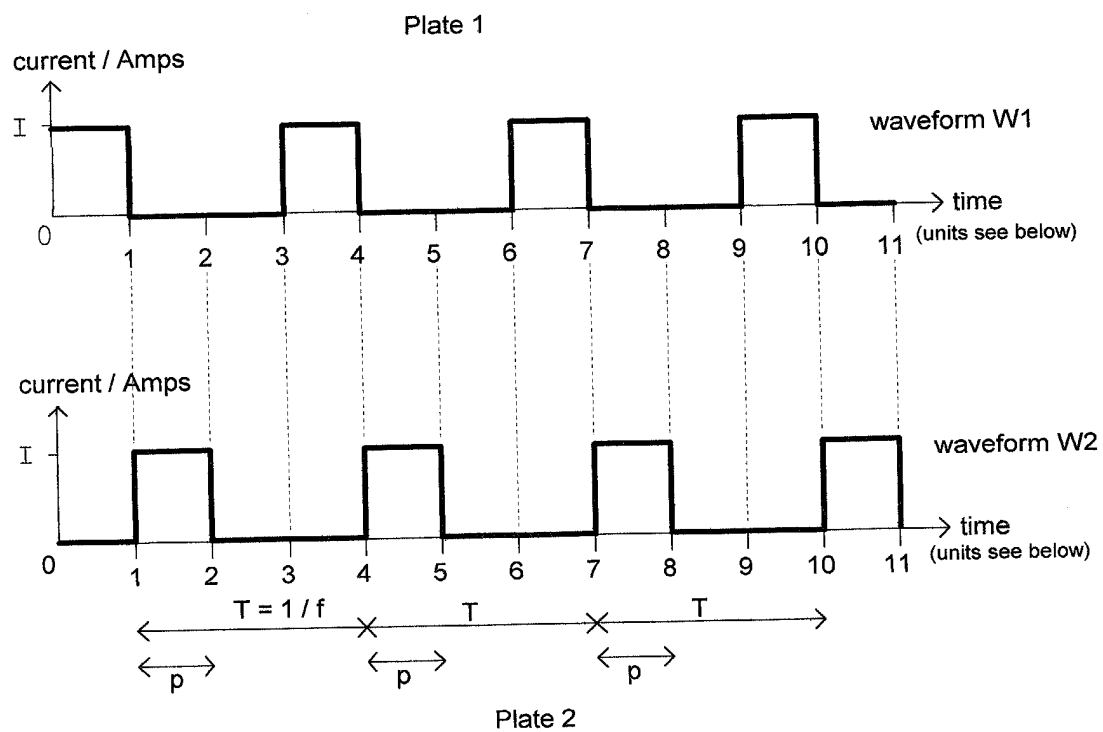
Plate 2

$f = c / (3\ a) = $ drive frequency in Hz

$p = $ pulse duration $= T / 3$, where $T = 1 / f$

FIG 3: x and z separation of 2 segments, ie segment pair

Plate 1   Plate 2

a

x

z

a

current segments

feeder wires   feeder wires
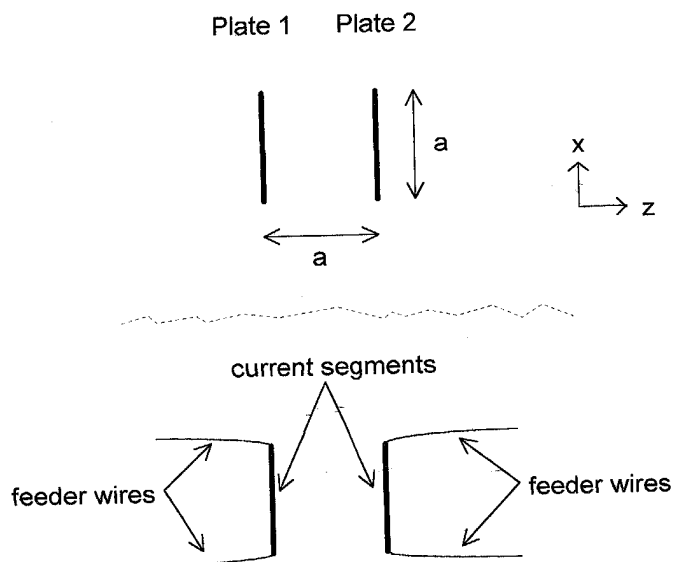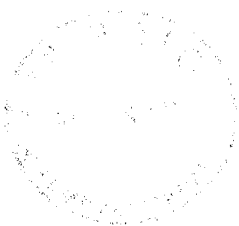
FIG 4: x and z separations of neighboring segments

Plate 1   Plate 2

$\sqrt{15}\,a$

$\cong 3.873a$

4a

$\sqrt{15}\,a$

$\cong 3.873a$

4a

a

a

$\sqrt{15}\,a$

$\cong 3.873a$

x

z
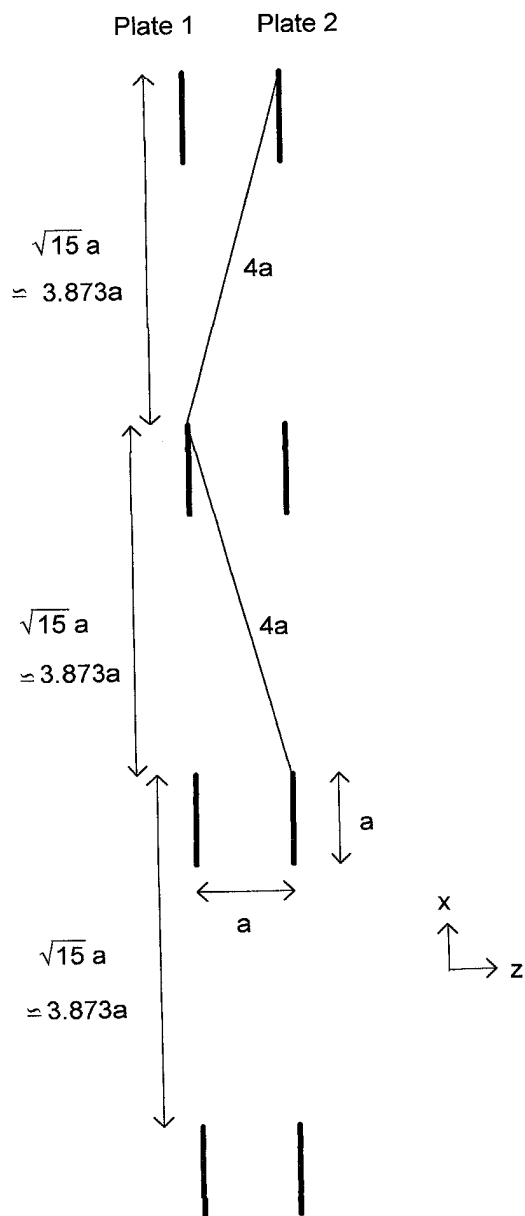
FIG 5: x and y separations in a single plate

a

a

a

$\sqrt{15}\,a$

$\cong 3.873a$

$\sqrt{15}\,a$

$\cong 3.873a$

$\sqrt{15}\,a$

$\cong 3.873a$

$(\sqrt{15} - 1)\,a$

$(\sqrt{15} - 1)\,a$

$\sqrt{15}\,a$

$\sqrt{15}\,a$

y

x
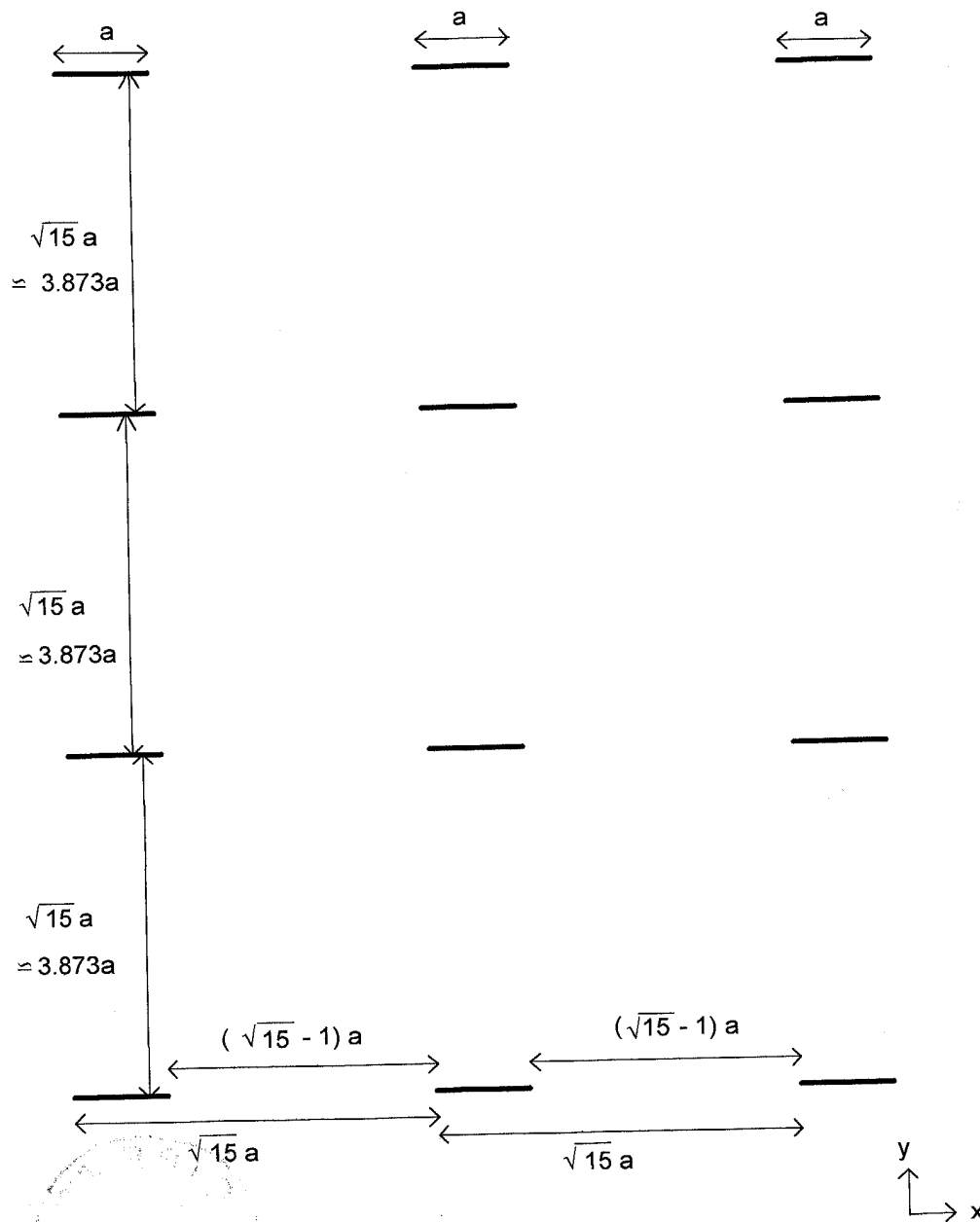
FIG 6: z and y separation in two plates

Plate 1

Plate 2

$\sqrt{15}\,a$

$\cong 3.873a$

each dot depicts a
cross-section of a
single segment
(8 in this diagram)

$\sqrt{15}\,a$

$\cong 3.873a$

$\sqrt{15}\,a$

$\cong 3.873a$

a

y

z
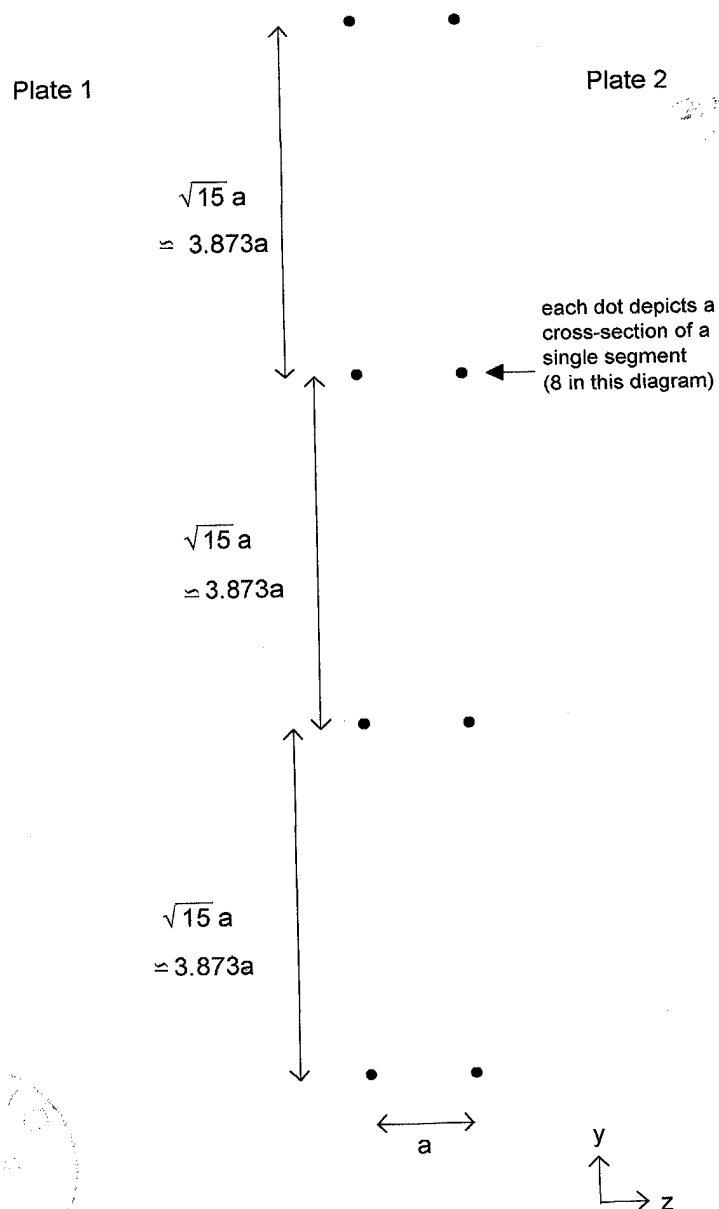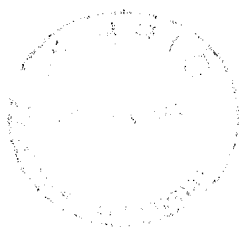
FIG 7: perspective view of the two plates

Plate 1   Plate 2

y
x
z

separation a
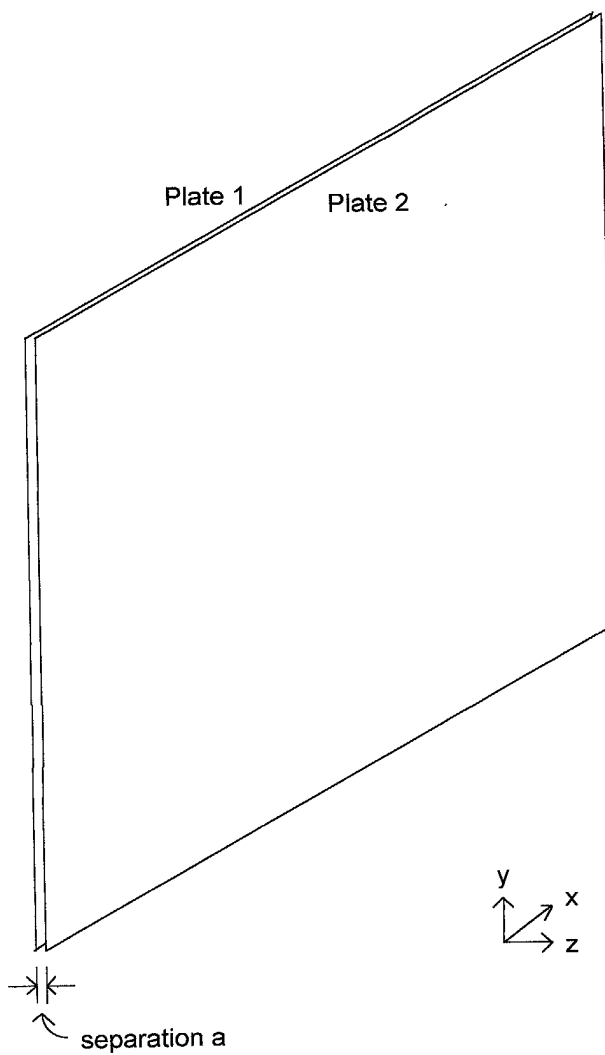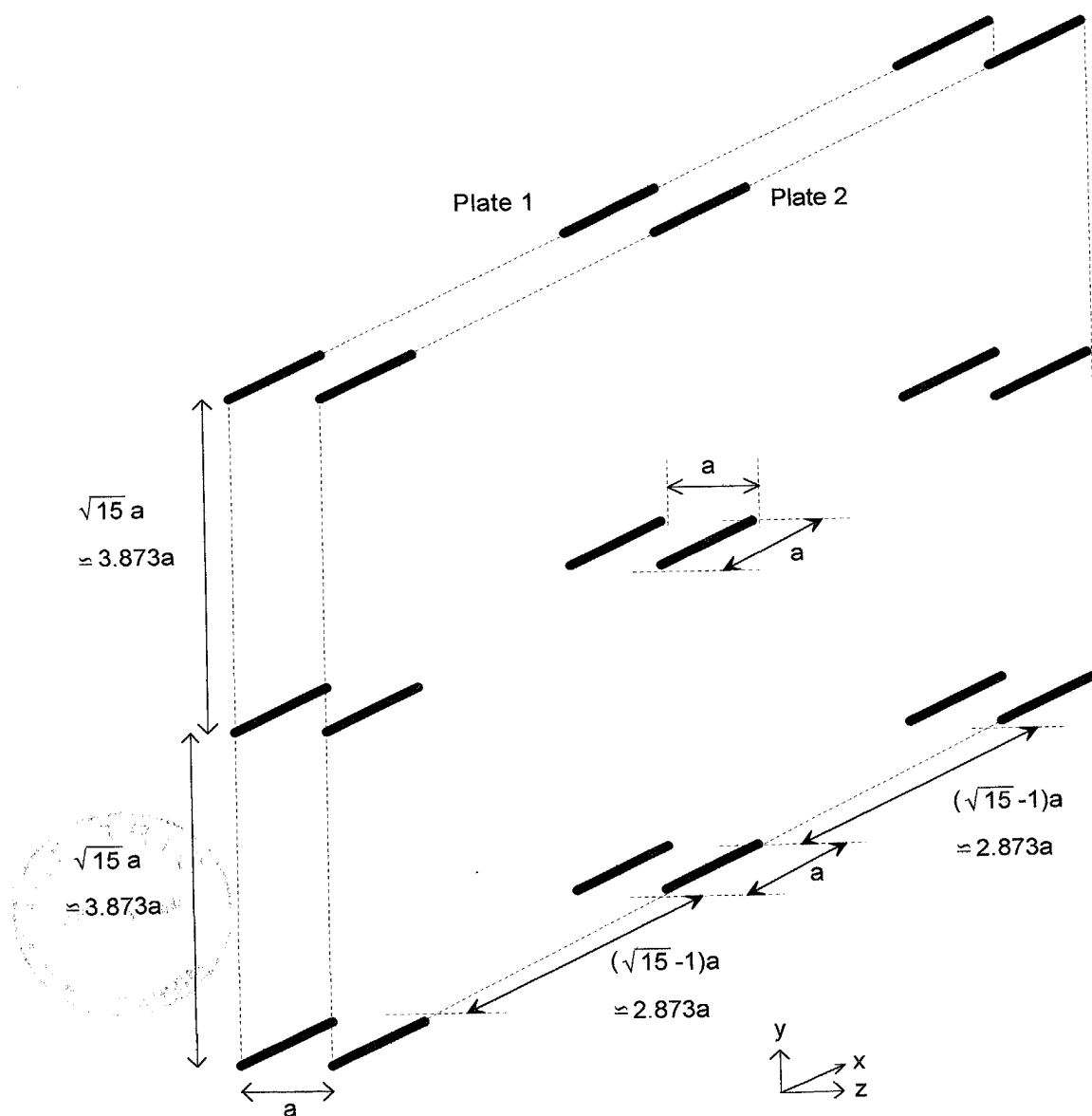
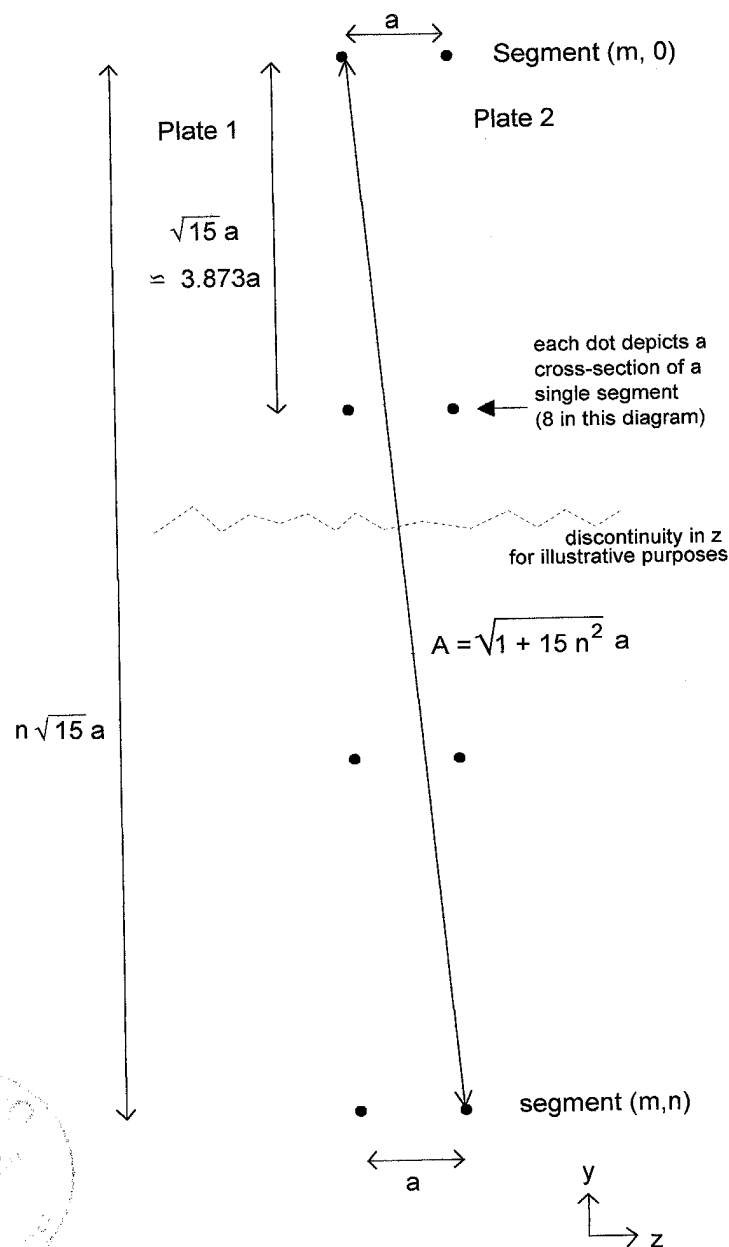FIG 8: close-up perspective view of the two plates and current segments

Distance 'a' is fixed for a particular SCAM, but is flexible to support SCAMs
of different scales. Typical values for 'a' would range from 1 cm to 1 km

Plate 1   Plate 2

$\sqrt{15}\,a$

$\cong 3.873a$

a

a

$\sqrt{15}\,a$

$\cong 3.873a$

$(\sqrt{15}-1)a$

$\cong 2.873a$

a

$(\sqrt{15}-1)a$

$\cong 2.873a$

a

y

x

z

FIG 9: m-n segment distance relationship

$\overset{\longleftrightarrow}{a}$

Segment (m, 0)

Plate 1

Plate 2

$\sqrt{15}\ a$

$\cong\ 3.873a$

each dot depicts a
cross-section of a
single segment
(8 in this diagram)

discontinuity in z
for illustrative purposes

$A = \sqrt{1 + 15\,n^2}\ a$

$n\sqrt{15}\ a$

segment (m,n)

$\overset{\longleftrightarrow}{a}$

y

z

10/036,893

FIG 10: Force between current-carrying conducting wires
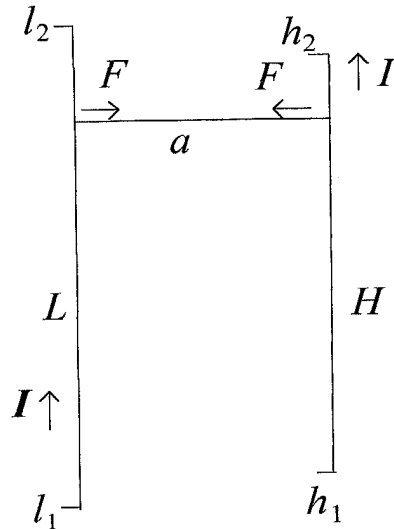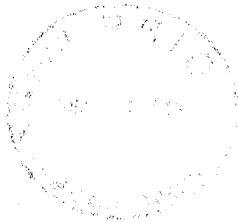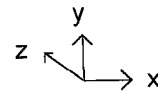

I current in the wires

In this theoretical description, the values of a, h_1, h_2, l_1, l_2 and I are variable

FIG 11: Plate 1 (0,0) to Plate 2 (m,n) segment distance, B

Plate 1

a

segment (0,0), Plate 1

a

segment (0,0), Plate 2

Plate 2

a

a

distance from segment (0,0) Plate 1 to segment (m,n) Plate 2

$$= B = \sqrt{1 + 15(m^2 + n^2)}\ a$$

$n\sqrt{15}\ a$

segment (m,n), Plate 2

$m\sqrt{15}\ a$

y

z

x
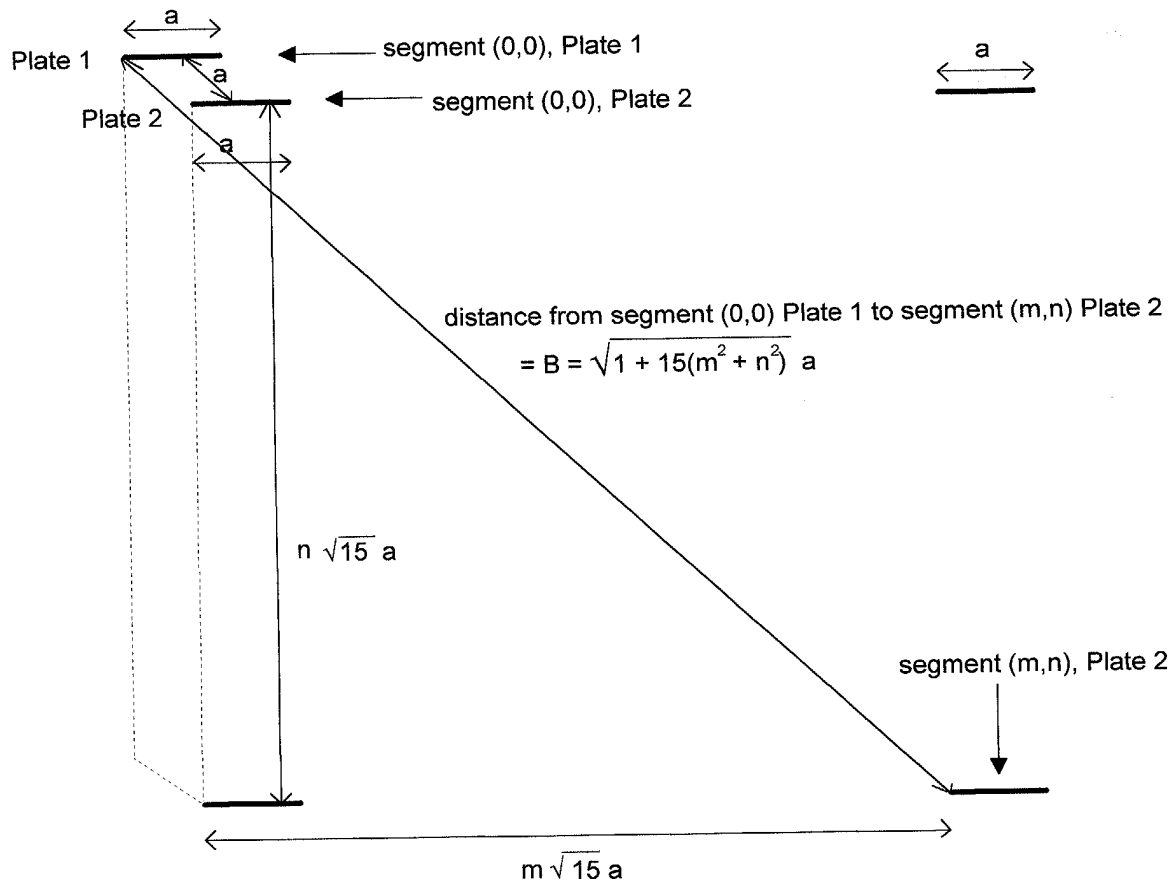
FIG 12: timing differences
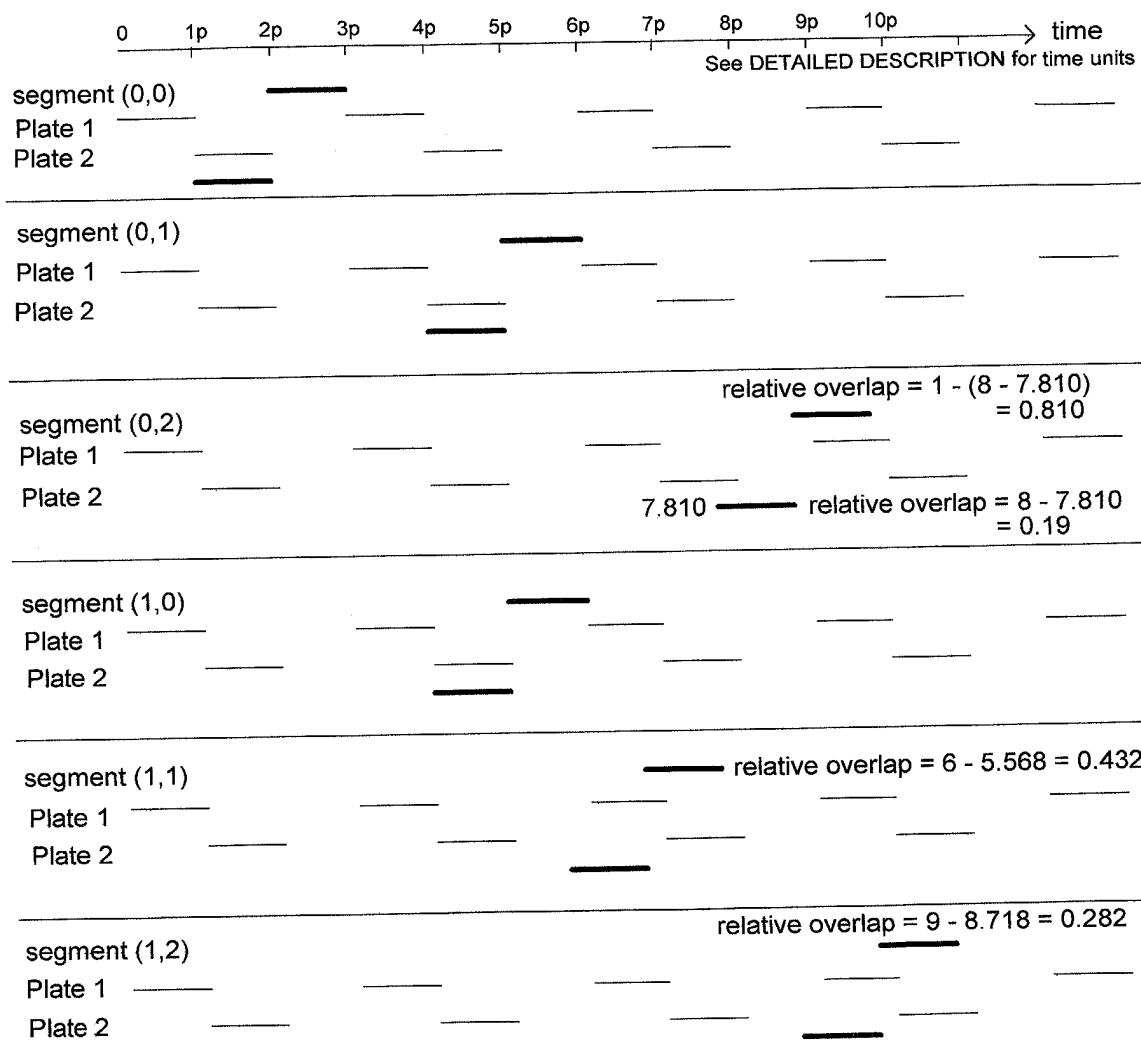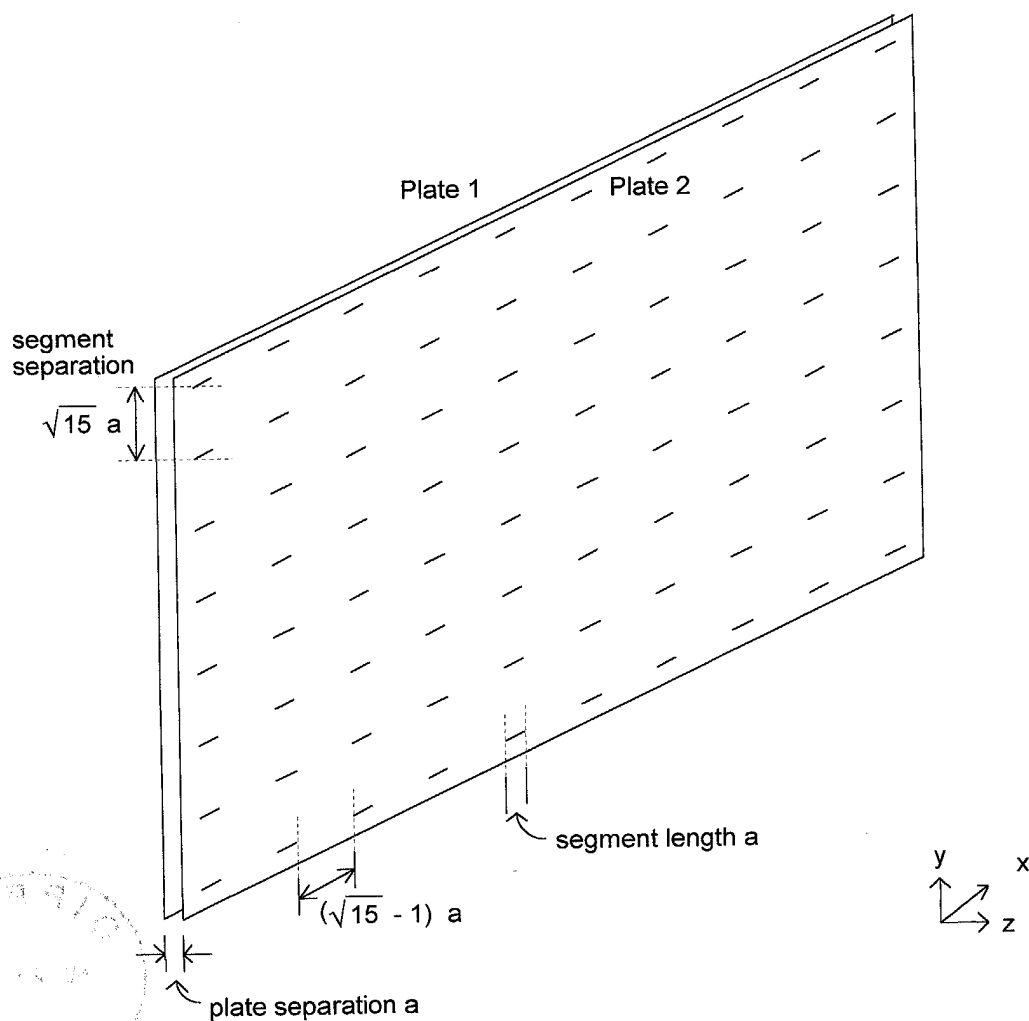
time

0 1p 2p 3p 4p 5p 6p 7p 8p 9p 10p

See DETAILED DESCRIPTION for time units

segment (0,0)
Plate 1
Plate 2

segment (0,1)
Plate 1
Plate 2

relative overlap = 1 - (8 - 7.810)
= 0.810

segment (0,2)
Plate 1
Plate 2

7.810 ——— relative overlap = 8 - 7.810
= 0.19

segment (1,0)
Plate 1
Plate 2

relative overlap = 6 - 5.568 = 0.432

segment (1,1)
Plate 1
Plate 2

relative overlap = 9 - 8.718 = 0.282

segment (1,2)
Plate 1
Plate 2

FIG 13: Gazette view

Plate 1   Plate 2

segment
separation

$\sqrt{15}$ a

segment length a

$(\sqrt{15} - 1)$ a

y   x

z

plate separation a

Distance 'a' is fixed for a particular SCAM, but is flexible to support SCAMs of different scales.
Typical values for 'a' would range from 1 cm to 1 km

+

FIG 14: Relativistic force between current-carrying conducting wires

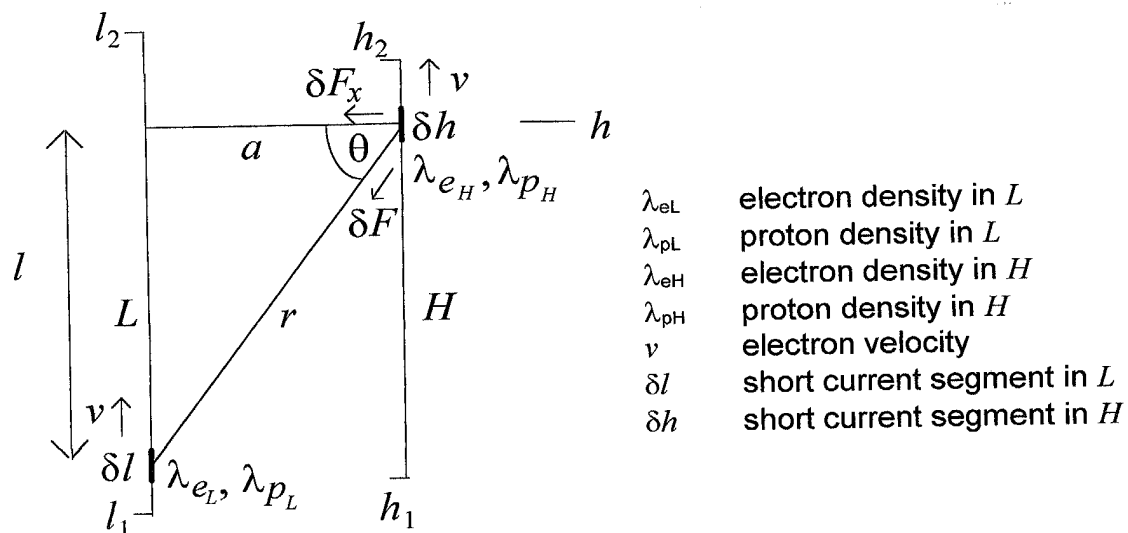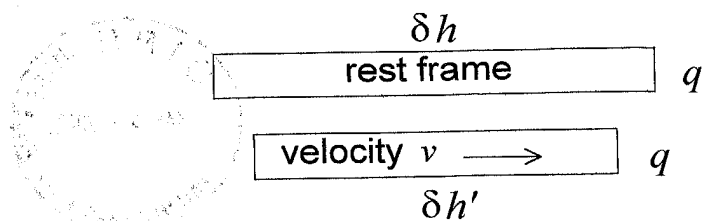|	
λ_{eL}	electron density in L
λ_{pL}	proton density in L
λ_{eH}	electron density in H
λ_{pH}	proton density in H
v	electron velocity
δl	short current segment in L
δh	short current segment in H

FIG 15   Lorentz length contraction

+